

Office of Marine and Aviation Operations

SAFETY NEWS

From the Safety and Environmental Compliance Division

FIFTEENTH EDITION

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Message from Mr. Kevin Ivey, Director, SECD

In this issue we cover a wide range of topics with a focus on safety considerations that coincide with this time of year. Also, the winner of the NOAA Proactive Safety Ship of the Quarter Award is announced along with recognition of good performance throughout the organization. Additionally we share information regarding recent accidents and lessons learned as well as our most recent accident rates. We are doing well in meeting accident rate goals for the year. We are thankful that we have full support from OMAO leadership regarding the importance of safety in all we do. We hope that the information shared in this newsletter is, in part, contributing to our improved safety performance. There is always room for improvement. Please keep us in the loop. Feel free to share your thoughts and suggestions.

Stay safe...



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POLICY SPOTLIGHT

NOAA Ship Health Policy and Plan

On April 23, 2013, Admiral Devany issued OMAO Policy 1005 authorizing the establishment of a NOAA Ship Health Plan. The NOAA Ship Health Plan supercedes Chapter 8 of the NOAA Fleet Inspection Manual and Vessel Sanitation Program 2011 Operations Manual regarding items listed in the NOAA Ship Health Plan. The NOAA

Ship Health Plan provides current guidelines for health and sanitation conditions aboard NOAA ships. The plan applies to inhabitable spaces aboard all NOAA ships establishing requirements for health and sanitation inspections, safe drinking water, safe food handling and preparation, emergency signage, emergency wash stations, and shipboard medical capabilities including first aid kits and medicines required to be on board.

The policy and plan are available via the OMAO Document Management System, <http://10.49.29.4/WebDesktop/Binders.aspx>, on the inside OMAO website and the shipboard Tortoise SVN system. Remember to RUN SVN "Update" to stay current.

ACCIDENT STATISTICS

The total number of OMAO near miss; minor/first aid; medical treatment; lost time/light duty; and other incidents reported during the June and July 2013 timeframe is listed in the table below. **Arrows indicate trends when numbers are normalized and compared with previous reporting periods.** Accident rates over the past 15 months and a corresponding bar graph are also shown. Rates for the year are down from a year ago and within goal; however, monthly rates are trending slightly upward. So please take a moment to think about the activity you are about to engage in. Refocus on completing the task safely and let's get better in all that we do.

Near Miss - 3

Equipment failure - 1 Other - 2

Minor/First Aid - 7

Struck by - 3 Slip, trip, fall - 2 Laceration - 1 Exertion - 1

Medical Treatment – 9

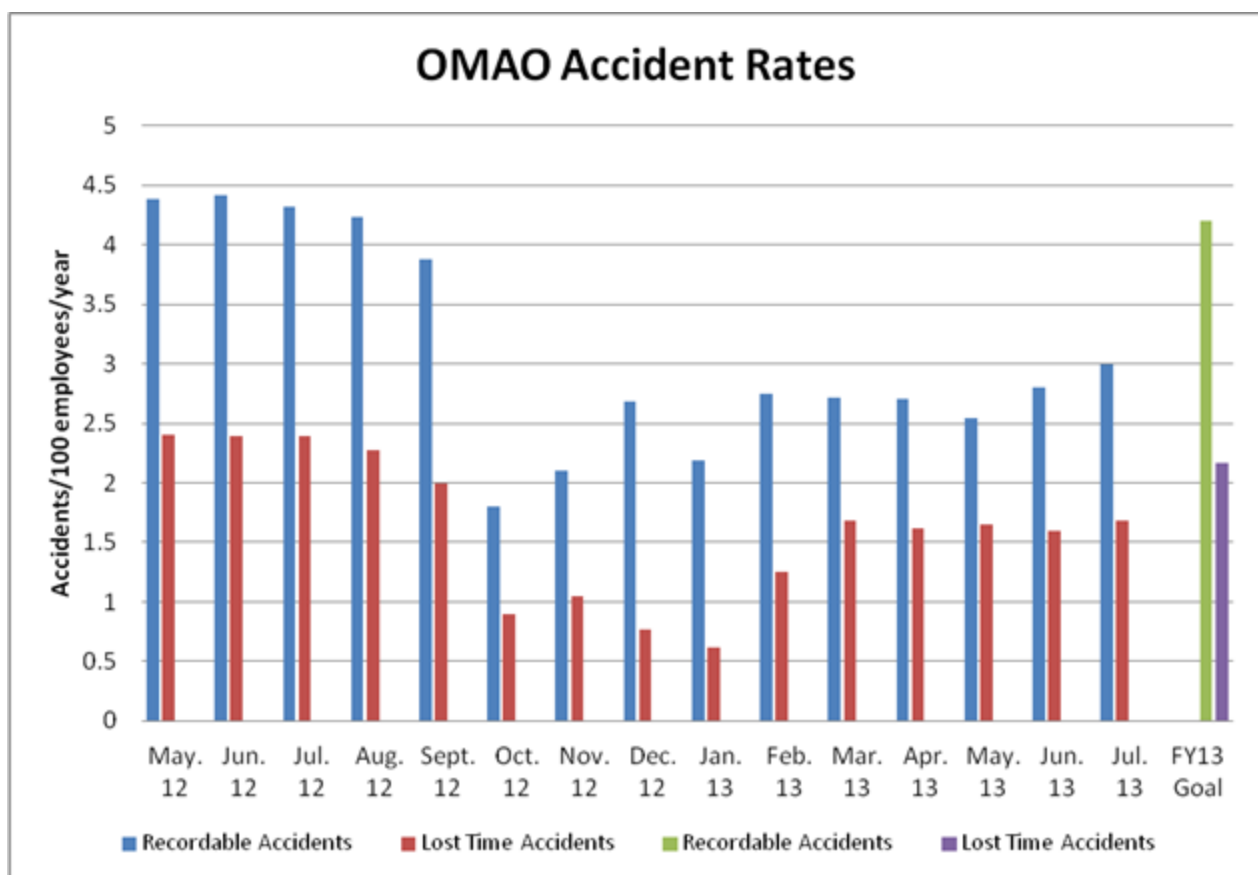
Contact with - 6 Exertion - 2 Other - 1

Lost Time/Restricted Duty – 2

Slip, trip, fall - 1 Caught on - 1

Other – 2

Environmental - 2



OMAO Annual Accident Rates*

	FY12 Total	FY13 YTD	FY13 Goal
↓ Recordable Accident Rate	3.88	3.00	4.20
↓ Lost Time Accident Rate	1.99	1.68	2.17

*Accident rates are calculated based on the total number of recordable and lost time accidents that occur in the workplace compared to the total number of hours worked by all employees at that workplace. The accident rate represents the number of accidents that have occurred per 100 employees for the year.

RECENT INCIDENTS: CAUSES AND LESSONS LEARNED

This section provides a description of recent incidents that have occurred in OMAO. In many cases, more thorough follow-up investigations have been conducted and more comprehensive lessons learned have been disseminated to targeted audiences within OMAO. The information below is intended to remind us of the importance of staying safe.

Description: While tending lines during deployment of a ship's launch aboard a NOAA ship, a crewmember slipped and

Description: An aviation crew member was placing chocks on the landing gear of a NOAA aircraft after the aircraft had been

tripped in way of a raised deck grating, and fell awkwardly sustaining minor strains, cuts, and abrasions. After the incident, the crewmember stated he was wearing an old pair of safety shoes with worn soles that he had been planning to replace.

Causal Factors: The ship reported the root causes of this incident were: 1) use of ineffective personal protective equipment for a routine deck operation; 2) failure to pay attention to footing combined with performing the line handling action at an unnecessarily fast rate of speed in the vicinity of a trip hazard (the deck grating); and 3) condensation on deck causing slippery conditions. Additionally, the investigator believes the crewmember was concentrating on stepping over the deck grating (a known trip hazard) before gaining balance on the plant foot, thus causing the slip.

Lessons Learned: The ship reported that all personnel were reminded by the command that (1) reimbursement is available for safety shoe purchases up to \$75/year, and (2) as the ship is approaching the mid-point of the season, to be on the lookout for complacency caused by performance of on-going routine operations and potential for lack of focus caused by daily distractions. Additionally, the condition of the main deck in proximity of the launch davits is a known problem area, and the command has requested that corrective actions and modifications be done during an upcoming repair period.

repositioned. While placing the chocks, the crewman heard someone call out. Due to high ambient noise and windy conditions, the crewman was unclear regarding the nature of the communication. From a crouching position while stepping out from under the aircraft wing to investigate, the crewman struck the corner of the landing gear door with the top of head. There was brief, localized discomfort, but no apparent injury and the crewman continued with duties. Two days later the crewman began to experience noticeable head discomfort and disorientation requiring a visit to a medical facility where the crewman was diagnosed with a concussion requiring follow-up care.

Causal Factors: It is believed that reacting to the distraction was the primary causal factor associated with this incident. The ambient conditions and environmental surroundings were contributing factors.

Lessons Learned: Any interruption in routine procedures especially while performing a seemingly mundane task can result in an incident. When interrupted, maintain focus on the task at hand prior to diverting attention to the source of the interruption. Don't let the interruption increase the hazards associated with the current task. Stop and re-evaluate the situation and associated hazards before deviating from the norm.

Description: A crewmember aboard a NOAA ship received minor burns to the fingers due to contact with an acid de-scaling cleaner while scrubbing metal plates that are part of the ship's water making equipment. The plates were soaked in the acid, rinsed with fresh water, and allowed to dry prior to scrubbing them. After removing the plates from the acid and rinsing them, the crewmember removed gloves that were being worn as protection from the acid. The crewmember subsequently did not wear the gloves while handling and scrubbing the plates after they had dried.

Causal Factors: Primary cause of the incident was not wearing proper personal protective equipment (PPE) to protect against residual acid that remained on the evaporator plates after they had been rinsed and dried. The residual acid had not been identified and recognized as a potential hazard.

Lessons Learned: Operational risk management (ORM) assessments should be conducted to identify hazards and determine PPE requirements. PPE should be viewed as a last line of defense against injury. As part of the ORM assessment, first determine if the hazards can be reduced by altering the order or the manner in which tasks are performed. Once PPE requirements are identified, ensure PPE is properly worn at all times to protect against all potential hazards.

Description: After donning required turn-out gear during a weekly fire drill aboard a NOAA ship, a crewmember was overcome by heat and fatigue, weakness and dizziness. The crewmember was subsequently attended to by personnel involved in the drill and was instructed to lie down. The turn-out gear was removed, and the crewmember was moved to an air-conditioned space, provided fluids, and monitored by the ship's medical officer.

Causal Factors: The crewmember had been working outside in the sun, then reported for the drill. The combination of on-going work, warm conditions, and the requirement to wear heavy turn-out gear for the drill led to overheating. The ship reported that the primary cause was dehydration and exertion leading to a heat stress reaction.

Lessons Learned: The ship reported that all personnel were advised to stay hydrated, drink plenty of fluids, and to be alert for the effects of the heat and humidity while working. It was also noted that rest periods, out of the heat if possible, should be taken as needed. In addition, as it applies to all, recognize the symptoms, know what first aid actions to take, and learn the preventive measures associated with heat stress.

OMAO Safety and Environmental Compliance Division regularly posts Accident Investigation and Lessons Learned on the following web site:

http://www.omaο.noaa.gov/accident_investigations_lessons_learned/index.html

BEST PRACTICES

The best ideas for improving safety come from the field. Do you have an idea to help prevent injuries? Please send it to the SECD Chief (omaο.secd@noaa.gov) or to MOC safety staff at Safeship.moc@noaa.gov and we will plan to share it throughout OMAO.

NEWS AND NOTES

Proactive Safety Ship of the Quarter – NOAA Ship *Rainier* is the winner of the Proactive Safety Ship of the Quarter Award for the quarter ending June 30, 2013. Congratulations *Rainier*! Crew members will receive either one or two days of additional time-off based upon their time spent aboard the ship during the quarter.

Several ships continue to score at or near the top. Those at the top have consistently scored high based on quarterly reports submitted to Safeship.moc@noaa.gov describing their proactive safety activities. The reports typically provide a summary of safety stand-downs, safety training, and drills that were conducted during the quarter beyond what is minimally required. The safety reports also highlight any additional activities such as identification and correction of safety hazards, individual safety awards, safety committee meetings held, and resolution of safety-related issues. In addition, please keep in mind that points are being awarded based on information submitted via the Spirit of Safety program. So keep those cards coming.

For more information about the award and the scoring criteria, please refer to safety procedures document 1701-23, Proactive Safety Improvement Award – Ship of the Quarter. The document is available via the OMAO Document Management System on the inside OMAO website, <http://10.49.29.4/WebDesktop/Binders.aspx>.

Sustained Proactive Safety Performance – RADM Devany and RDML Score would like to recognize and extend congratulations to NOAA Ships Oscar Elton Sette, Hi'ialakai, and Thomas Jefferson for scoring at or near the top every quarter since the Proactive Safety Ship of the Quarter was first awarded in April 2012. By demonstrating sustained safety performance, the crewmembers aboard these ships and many others throughout the fleet are not only “talking the talk,” but are “walking the walk” and are proving to be leaders in improving the safety culture throughout the organization. Bravo Zulu!

NOAA Emergency Notification System (ENS) Update – A test of NOAA's emergency notification system (ENS) was conducted on June 12, 2013. Approximately 80% of all NOAA employees acknowledged receipt of the emergency test message by phone and/or email within a very short time period, in most cases within minutes, after initiation of the test.

The effectiveness of the system is dependent upon the accuracy of the data in the NOAA Staff Directory (NSD). All employees and supervisors are reminded to review and update their NOAA Staff Directory information at <https://nsd.rdc.noaa.gov/nsd/moreinfo> to ensure the information is current. It is especially important to ensure that your duty station location, address, email, and phone number(s) are correctly listed.

A follow-up test of the system is planned for the week of September 16, 2013. The emergency message will initiate a “reverse emergency phone tree” by requesting that employees contact their supervisors to confirm receipt of the message and to report regarding their safety.

Aviation Safety Training – AOC recently held aviation safety training at MacDill Air Force Base in Tampa, Florida. In addition to instructor-led discussion, the training included exercises using a Portable Reduced Oxygen Training Enclosure (PROTE) which creates an actual loss of oxygen environment that pilots may experience at high altitude, exercises in the use of Helicopter Emergency Egress Device (HEED) for underwater escape breathing, and in-pool swimming and water survival training. The training was highly successful. 61 training evolutions were conducted. 32 students were trained. Conducting the training in-house resulted in approximately \$26,000 in savings.

On-the-Job Training (OJT) – OJT is especially important for newly-hired employees, employees assigned to a new location, and those asked to perform new duties. Augmenters

aboard NOAA ships, for example, meet most if not all of the criteria in which requirements for OJT applies. OJT can be provided both formally and informally. There are many tools available that can be used to provide training to those requiring OJT, from video presentations to on-line fact sheets. Please contact Kevin Fleming at MOC STEM for more information.

Safety Stand-downs – Ships are reminded to stay current in conducting and reporting safety stand downs that have been held during the quarter. If stand downs are reported in the corrective action section of an accident report form, please also record and report according to the stand-down procedure, 1701-08, to receive proper credit for time completed. Please contact MOC STEM if there are any questions or if more information is needed.

Safety During Drills – Fire and emergency drills are of great value and importance. The best drills are the ones that are realistic and introduce and incorporate what will likely be experienced during an actual emergency. Drill planners and participants are reminded, however, to please remember, “safety first”; don’t jeopardize safety in an effort to add realism.

Accident Reporting and Safety Performance – It has been noted that several ships do a very good job reporting accidents. Reports are submitted in a timely manner; accidents are accurately described; investigations are thoroughly conducted to determine causal factors; and corrective/preventive actions are identified. It is also noted that those same ships seem to be the ones who consistently score well for the Proactive Safety Ship of the Quarter Award.

This does not suggest that scoring high is a direct result of good accident reporting, but it appears there is a correlation between good accident reporting and good safety performance. The MOC safety committee has added a feedback section to the monthly summary of accidents to help better understand what is being reported; take time to review these and share with the crew. Please contact Doug Smith at MOC STEM or your organization’s Safety Officer if you have any questions or would like more information.

Timeliness of Accident Reporting – Employees and supervisors are reminded that the timeliness of accident reporting is not only important to meet NOAA policy, it could affect the validity of Office of Workers Compensation Program claims. NOAA policy states all accidents are to be reported within 24 hours of their occurrence. NOAA Safety and Environmental Compliance Office (SECO) considers reports submitted greater than 72 hours late. Serious accidents, that is, those resulting in death, hospitalization of three or more persons, or property damage in excess of \$1M are to be reported as soon as possible and no later than 8 hours after they occur. Please note initial reports can be followed-up with supplemental information that may not be available at the time of the initial report. For example, investigation details, root cause, and corrective actions requested on the report form can be cursory initially or marked, “to be determined,” with the understanding that follow-up information will be submitted at a later date.

Slips, Trips and Falls – Slips, trips and falls continue to be the source of a majority of our accidents. As far as preventing slips, trips and falls, verbal instructions are best remembered if repeated at least once. To be effective, don’t repeat the instruction verbatim, but use slightly different wording. It usually takes at least two rounds of instruction to get the point

across. Review lessons learned regarding slips, trips and falls. Inquire regarding what others may be doing. Look for, and correct, known problem areas.

Food Safety - Considering the potential for hurricanes and severe storms this time of year and the risk of prolonged power outages, below is a link to "Keeping Food Safe During an Emergency," a fact sheet published by the U.S. Department of Agriculture (USDA) Food Safety and Inspection Service. http://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/emergency-preparedness/keeping-food-safe-during-an-emergency/CT_Index

Driving Safety – Employees are reminded to drive defensively at all times and especially this time of year with kids returning to school and the potential for increased activities during rush-hour commutes. Also as a reminder, Executive Order, Federal Leadership on Reducing Texting While Driving, went into effect on September 30, 2009. It states, "Federal employees shall not engage in text messaging (a) when driving GOV, or when driving POV while on official Government business, or (b) when using electronic equipment supplied by the Government while driving." In addition, many states have laws prohibiting texting and use of cell phones and other mobile devices while driving. The National Highway Transportation Safety Administration is a good source for information on distracted driving (<http://www.distraction.gov/>) including a summary of laws, by state, governing the use of mobile devices while driving (<http://www.distraction.gov/content/get-the-facts/state-laws.html>).

TERM OF THE MONTH

Ergonomics – The word "Ergonomics" comes from two Greek words "ergon," meaning work, and "nomos" meaning "laws." Today, the word is used to describe the science of "designing the job to fit the worker, not forcing the worker to fit the job." It is most often associated with designing work stations that help maintain good posture for office workers or designing equipment that protects against long-term illness associated with jobs requiring repetitive motion. In a larger sense it speaks to body mechanics in general. Examine your work area and work practices to see if either could be a potential source of problems or injury. Pay attention to your movements in relation to your surroundings. Learn to make adjustments in real time if the situation warrants. Sometimes small modifications to work procedures, posture, habits, bodily motion, and work station configuration can make a big difference with respect to your health and safety, and in the way you feel at the end of the day.

COMMON INTERESTS

Below is an article containing excellent information about heat stress from the National Institute for Occupational Safety and Health Centers for Disease Control and Prevention

Types of Heat Stress

Heat Stroke

Heat stroke is the most serious heat-related disorder. It occurs when the body becomes unable

to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106 degrees Fahrenheit or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

Symptoms

Symptoms of heat stroke include:

- Hot, dry skin or profuse sweating
- Hallucinations
- Chills
- Throbbing headache
- High body temperature
- Confusion/dizziness
- Slurred speech

First Aid

Take the following steps to treat a worker with heat stroke:

- Call 911 and notify their supervisor.
- Move the sick worker to a cool shaded area.
- Cool the worker using methods such as:
 - Soaking their clothes with water.
 - Spraying, sponging, or showering them with water.
 - Fanning their body.

Heat Exhaustion

Heat exhaustion is the body's response to an excessive loss of the water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.

Symptoms

Symptoms of heat exhaustion include:

- Heavy sweating
- Extreme weakness or fatigue
- Dizziness, confusion

- Nausea
- Clammy, moist skin
- Pale or flushed complexion
- Muscle cramps
- Slightly elevated body temperature
- Fast and shallow breathing

First Aid

Treat a worker suffering from heat exhaustion with the following:

- Have them rest in a cool, shaded or air-conditioned area.
- Have them drink plenty of water or other cool, nonalcoholic beverages.
- Have them take a cool shower, bath, or sponge bath.

Heat Syncope

Heat syncope is a fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

Symptoms

Symptoms of heat syncope include:

- Light-headedness
- Dizziness
- Fainting

First Aid

Workers with heat syncope should:

- Sit or lie down in a cool place when they begin to feel symptoms.
- Slowly drink water, clear juice, or a sports beverage.

Heat Cramps

Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Symptoms

Muscle pain or spasms usually in the abdomen, arms, or legs.

First Aid

Workers with heat cramps should:

- Stop all activity, and sit in a cool place.
- Drink clear juice or a sports beverage.
- Do not return to strenuous work for a few hours after the cramps subside because further exertion may lead to heat exhaustion or heat stroke.
- Seek medical attention if any of the following apply:
 - The worker has heart problems.
 - The worker is on a low-sodium diet.
 - The cramps do not subside within one hour.

Heat Rash

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather.

Symptoms

Symptoms of heat rash include:

- Heat rash looks like a red cluster of pimples or small blisters.
- It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

First Aid

Workers experiencing heat rash should:

- Try to work in a cooler, less humid environment when possible.
- Keep the affected area dry.
- Dusting powder may be used to increase comfort.

Recommendations for Employers

Employers should take the following steps to protect workers from heat stress:

- Schedule maintenance and repair jobs in hot areas for cooler months (if possible).
- Schedule hot jobs for the cooler part of the day.
- Acclimatize workers by exposing them for progressively longer periods to hot work environments.
- Reduce the physical demands of workers.
- Use relief workers or assign extra workers for physically demanding jobs.
- Provide cool water or liquids to workers.
 - Avoid alcohol, and drinks with large amounts of caffeine or sugar.
- Provide rest periods with water breaks.
- Provide cool areas for use during break periods.
- Monitor workers who are at risk of heat stress.
- Provide heat stress training that includes information about:
 - Worker risk
 - Prevention
 - Symptoms
 - The importance of monitoring yourself and coworkers for symptoms
 - Treatment
 - Personal protective equipment

Recommendations for Workers

Workers should avoid exposure to extreme heat, sun exposure, and high humidity when possible. When these exposures cannot be avoided, workers should take the following steps to prevent heat stress:

- Wear light-colored, loose-fitting, breathable clothing such as cotton.
 - Avoid non-breathing synthetic clothing.
- Gradually build up to heavy work.
- Schedule heavy work during the coolest parts of day.
- Take more breaks in extreme heat and humidity.
 - Take breaks in the shade or a cool area when possible.
- Drink water frequently. Drink enough water that you never become thirsty. Approximately 1 cup every 15-20 minutes.
- Avoid alcohol, and drinks with large amounts of caffeine or sugar.

- Be aware that protective clothing or personal protective equipment may increase the risk of heat stress.
- Monitor your physical condition and that of your coworkers.

SAFETY STAFF

OMAO	MOC	AOC
Mr. Kevin Ivey Chief, SECD Kevin.ivey@noaa.gov 301-713-7706	Doug Friske Chief, STEM Douglas.a.friske@noaa.gov 757-441-6709	CDR Mark Sweeney AOC Safety Officer Mark.sweeney@noaa.gov 813-828-3310 x3019
Bill Cunningham SECD Staff Bill.cunningham@noaa.gov 301-713-7666	Doug Smith STEM Staff Douglas.w.smith@noaa.gov 757-441-6465	LCDR Chris Kerns AOC Safety Staff Christopher.kerns@noaa.gov 813-828-3310 x3136
Jim Kelley NOAA Aviation Safety Jim.kelley@noaa.gov 301-713-7612	Julie Wagner STEM Environmental Officer Julie.n.wagner@noaa.gov 541-867-8808	LT John Rossi AOC Safety Staff John.rossi@noaa.gov 813-828-3310
Jack Burks Fleet Inspection Sylvester.j.burks@noaa.gov 757-441-6766	Kevin Fleming STEM Fleet Training Coordinator Kevin.j.fleming@noaa.gov 757-441-6800	LTjg (sel) Mike Hirsch AOC Safety Staff Michael.n.hirsch@noaa.gov 813-828-3310 x3104
LCDR Paul Kemp Small Boat Program Paul.w.kemp@noaa.gov 206-553-0258	Ted Fulton STEM Staff Ted.fulton@noaa.gov 757-441-3484	CDR John Harris, USPHS Aviation Medical Officer John.harris@noaa.gov 813-828-3310
Doug Schleiger NOAA Dive Program Douglas.schleiger@noaa.gov 206-526-6476	CDR Les Cruise, USPHS Regional Director, Health Services, MOC-A Les.cruise@noaa.gov 757-441-3004	Jon F. Dixon Aviation Life Support Equipment Jon.f.dixon@noaa.gov 813-828-3310 x3040
Steve Urick NOAA Dive Safety Steve.urick@noaa.gov 206-526-6223	CDR Michelle Pelkey, USPHS Regional Director, Health Services, MOC-P Michelle.pelkey@noaa.gov 541-867-8822	
CAPT Jane Powers, USPHS Director, Health Services		

Jane.powers@noaa.gov
541-867-8821

Safety . . . our mission depends on it